

CLAIMS

1. A method of manually centering, in a rim (200) of a spectacles frame, an ophthalmic lens (103) that is provided with at least one center and/or axis marking (PC), the

5 method comprising the steps consisting in:

a) for calibration purposes, acquiring and storing the shadow of a predetermined geometrical figure (124B) formed on a transparent sign support (124) interposed between lighting means (S) and acquisition means (C) while said
10 support is being illuminated on its own by said lighting means, the geometrical figure (124B) presenting a maximum outside dimension lying in the range 2 mm to 10 mm;

b) superposing said ophthalmic lens and said transparent sign support;

15 c) acquiring and storing the shadow of said geometrical figure of said support as detected by said ophthalmic lens while said ophthalmic lens and said support are being illuminated together by said lighting means;

20 d) using the acquisition means (C) to acquire the shadow of the center and/or axis marking (PC) of the ophthalmic lens (103) for centering while it is illuminated by said lighting means;

e) displaying on a display screen (105) firstly the shadow of the center and/or axis marking (PC) of the
25 ophthalmic lens (103), and secondly a virtual centering target (CC) corresponding to the position desired for the center marking (PC) of the lens (103) relative to a reference point (CB) of the rim (200) of the frame;

30 f) from the prismatic deflection of the geometrical figure (124B) as measured by comparing the acquisitions of steps a) and c), deducing a corrected relative position (CBc) for the reference point (CB) of the frame rim (200) relative to the center marking (PC), or vice versa; and

35 g) putting the shadow of the centering marking (PC) of the ophthalmic lens (103) manually into coincidence with the centering virtual target (CC).

2. A centering method according to claim 1, characterized in that steps c) to f) are performed in a loop after performing steps a) and b), so as to continuously obtain a corrected relative position (CBc) for the reference point
5 (CB) of the frame rim (200).

3. A centering method according to claim 2, characterized in that in step c), the shadow of the outline of the ophthalmic lens (103) for centering is acquired and in step
10 d) there is displayed on the display screen (105) firstly said shadow of the outline of the lens (103) and secondly a virtual image (200) representative of the corresponding rim of the frame, being offset independently of the reference point (CB) of said frame rim relative to the centering
15 virtual target (CC) associated with said frame rim in order to compensate for the prismatic deflections induced by the lens (103) for centering.

4. A centering method according to claim 1, characterized in that steps d) and e) are performed in a loop, following steps a) and b), and steps c) and f) are performed after
20 step g).

5. A method of centering and blocking an ophthalmic lens, the method comprising centering said lens using the method according to any preceding claim, and depositing a handling
25 peg at a predetermined location on said ophthalmic lens, account being taken of the corrected position (CBc) of the reference point (CB) of the frame rim (200) as calculated in step f).
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6. A centering and blocking device for implementing the method according to claim 5, the device comprising:

- receiver means (121, 114) for receiving the
35 ophthalmic lens (103);
- on either side of said receiver means, firstly lighting means (S) for illuminating the ophthalmic lens

(103) installed on said receiver means, and secondly acquisition and analysis means (C) for acquiring and analyzing the light transmitted through said ophthalmic lens; and

5 · a transparent support (124) including a geometrical figure presenting a maximum outside dimension lying in the range 2 mm to 10 mm, that is activatable and deactivatable, and that is disposed between said receiver means and said acquisition and analysis means.

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7. A device according to claim 6, characterized in that the geometrical figure (124B) occupies an area lying in the range 3 mm² to 80 mm².

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8. A device according to claim 7 or claim 8, characterized in that the geometrical figure (124B) is of a shape that is different from a point or a cross, being suitable for being distinguished visually from a marking on the ophthalmic lens.

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9. A device according to any one of claims 6 to 8, characterized in that the geometrical figure (124B) is a polygon, preferably a triangle.

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10. A device according to any one of claims 6 to 8, characterized in that the geometrical figure is a circle or an oval.

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11. A device according to any one of claims 6 to 10, characterized in that said receiver means, said lighting means; said acquisition and analysis means, and said transparent sign support are held stationary relative to one another.

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12. A device according to claim 6 or claim 11, characterized in that it includes a single optical path

between said lighting means (S) and said acquisition and analysis means (C).

5 13. A device according to any one of claims 6 to 12, characterized in that said transparent sign support (124) is a transparent active screen suitable for selectively displaying the geometrical figure.

10 14. A device according to claim 13, characterized in that said transparent screen is a liquid crystal screen.

15 15. A device according to any one of claims 6 to 14, characterized in that said transparent sign support comprises a regular array of repeated opaque patterns.

16. A device according to claim 15, characterized in that said transparent sign support comprises a Hartmann matrix.

20 17. A detector device according to any one of claims 6 to 16, characterized in that it includes means for placing a handling peg at a location on the front face of said ophthalmic lens that is determined by calculation.

25 18. A detector device according to any one of claims 6 to 17, characterized in that said acquisition and analysis means include, between the transparent sign support and the digital camera, an optical system for deflecting the light beam and including an inclined mirror.